ISSUE FEATURES

SAR SCENE

The Canadian Search and Rescue Magazine Online

Winter/Spring 2005 Vol. 14, #4

Volunteer search and rescue group uses ATVs

Fatigue and the SAR team

New low visibility landing requirements

CCG becomes Special Operating Agency

SAR Medic: A new course

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TABLE OF CONTENTS

SAR News

News 1
Awards 2
People 3
Events 6

Feature Stories

Ground SAR group uses ATVs 4
Fatigue's effects on the SAR team member 5

Ground SAR

SAR Medic: A new course 6

Air SAR

Arctic sovereignty patrol exercise includes simulated air crash 7
New low visibility landing requirements 7

New SAR Initiatives Fund

Training, technology and human factors in life raft use 8
UPDATE: Preparing for tsunamis 8
Rimouski's Quick and Efficient Response Unit 9
New public education program launched in B.C. 9
Distance learning for SAR managers 10
Risk assessment for recreational boating 10

Marine SAR

Simulated marine disaster helps participants prepare for major multi-agency rescues 11
CCG becomes Special Operating Agency 11
Three of six new vessels to be stationed on west coast 12
Drownings database helps organizations save lives 12

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ALTER EGO

Facts and opinions in SAR*SCENE* are those of the individual contributors and do not necessarily reflect the position or policies of the Secretariat.

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Submissions are welcome and should be sent to the Editor.

Top 10 Canadian weather stories of 2004

Environment Canada has released its list of the top ten Canadian weather stories for 2004. The list, compiled by Senior Climatologist David Phillips, looks back at the notable weather-related stories of the past year that broke records and made headlines. Highlights of the list include the massive winter storm that dumped record amounts of snow on Halifax, N.S., Peterborough, Ont.'s bi-centennial flood, wildfires in B.C. and heat waves in the Yukon.

Despite what seemed like a horrendous weather year, there were no tornadoes, hurricanes, droughts or plagues last year. And according to Environment Canada last year was, in fact, a warm year. The list can be found at:
www.msc.ec.gc.ca/media/top10/2004_e.html#topten

New computer improves weather forecasting

This past January marked the first anniversary of Environment Canada's supercomputer, Azur. To help celebrate, representatives from IBM Canada, the creators of Azur, were at the Environment Canada offices in Dorval, Quebec to commemorate the occasion.

The computer forms part of the core of Canada's weather forecasting system and is the 74th most powerful computer in the world and the 3rd most powerful in Canada.

Combined with Azur is a new software package, 4DVAR, that changes the way Environment Canada will forecast the weather by incorporating a time element to the computer-generated weather model.

Azur is leased on a $42 million, five-year contract and it took a year to set it up for use. There are 936 processors in 30 connected servers and the computer takes up the size of two tennis courts.

For more information, visit **www.ec.gc.ca**

Canada and U.S. Integrate Weather Forecasting

In late November 2004, the Honourable Stephane Dion, Minister for the Environment, announced the integration of Canadian and U.S. weather forecasting systems. The integration is designed to provide better forecasts for regions that straddle the border.

"Our goal is to ensure that Canadians and Americans get the same forecasts regardless of which side of the border they live on," said Minister Dion. "Soon, border communities such as Windsor and Detroit; Calais, Maine and St. Andrews, New Brunswick; Vancouver and Bellingham, Washington will benefit from forecasts based on shared data from Canadian and American observations."

Canadian and American agencies have been working since 2003 to develop the North American Ensemble Forecast System. The scope of the system can be expanded, shown by the involvement of the National Meteorological Service of Mexico.
www.ec.gc.ca/press/2004/041129_n_e.htm

Implications of increased PLB use

The use of emergency beacons is increasing, especially the number of personal locator beacons (PLB). With this increase comes an increase of alerts — both false and real.

There are approximately 1,500 PLBs registered in Canada and in July 2003, PLBs were approved for use in the United States. Since then, over 5,000 have been registered in the United States and this number is expected to increase exponentially.

Further, the new U.S. market for PLB technology may result in an influx of American backcountry users in Canada carrying beacons. This in turn will stimulate both the retail and rental markets in Canada.

The overall predicted effects are: more units, more use and more alerts.

Currently, when a beacon goes off, the alert is relayed to a land-

based station and then directed to the Canadian Mission Control Centre (CMCC) in Trenton, Ont. The CMCC then directs suspected alerts to the appropriate Joint Rescue Co-ordination Centre (Victoria, B.C., Trenton, Ont. or Halifax, N.S.) who will disseminate it to the proper authority for action.

However, with the expected increase in beacon usage and alerts, it is important to think about the time and effort that goes into investigating the alerts. Increased duties would fall to the provincial and territorial governments and their ground search and rescue teams to prosecute more alerts. This, in turn, would put increased pressure on teams' physical and financial resources.

More information will be available in the next issue of SAR*SCENE* Magazine Online.

SAR Directory survey results

A recent survey of organizations listed in the Canadian Directory of Search and Rescue Organizations identified contact information for other SAR organizations as the most significant benefit of the Directory.

The survey indicated support for new features such as searching SAR organizations by smaller regions. The Directory could, they indicated, also be used to enable communication amongst SAR groups for group purchasing and other joint efforts.

Although there was some lack of awareness about the Directory on the part of some organizations, the survey showed an overall positive rating for the directory and for the use of passwords for direct input of new information by users which was introduced last year.

442 Squadron opens new hangar

442 Transport and Rescue Squadron, based out of Comox, B.C., officially opened the new south side extension of hangar 14 this past January. In attendance for the unveiling were the Lieutenant Governor of British Columbia, Iona Campagnolo, 19 Wing Commander Colonel Jack Ambler, and 442 Squadron's commanding officer, Lieutenant-Colonel Michel Brisebois.

"442 Squadron performs a vital search and rescue role that supports Canadians," said Col. Ambler. "It is exciting to be a part of this project, which is critical to the Squadron fulfilling its role and additionally provides a safer, technologically advanced, environmentally friendly atmosphere."

The new hangar is currently home to CC-115 Buffalo aircraft and their ground crews. Hangar 14 was created to provide an earthquake-resistant hangar for planes and ground crews, so search and rescue missions could still be performed in the event of an on-base emergency.

"This means that following any such incidence, both aircraft and personnel can immediately be dispatched to deal with the after-effects of such an occurrence," said Lt.-Governor Campagnolo.

www.ltgov.bc.ca/whatsnew/sp/sp_jan21_1_2005.htm

SAR operations in the UK: an inquiry

This past January, Britain's Parliamentary Transport Committee reviewed search and rescue operations in the United Kingdom. Generated by the apparent increase in incidents, deaths and accidents around the English coastline, the inquiry was brought to Parliament's attention in a July 2004 report.

Search and rescue responsibilities are divided amongst many government organizations and part of the inquiry examined the effectiveness of the co-ordination. In addition, the committee looked into the use and effectiveness of volunteers in search and rescue efforts.

Although the committee focused on operational effectiveness, training, and funding for marine and coastal search and rescue operations, the main focus was to acknowledge the importance of volunteers in the national search and rescue program and to determine if voluntary organizations need further funding or government support.

In its final response to the committee, the Maritime and Coastguard Agency pointed out that most of the increase in the number of deaths in the marine environment were attributable to the agency taking on responsibility for areas which were previously outside its SAR coverage. The true number of incidents remains fairly steady.

The report determined that further work is needed on financial and tax incentives for employers who release their employees for emergency call-outs. As well, work is needed to find ways to compensate self-employed volunteers.

"The Government must propose new incentives which reward employers whose employees take time off work to provide SAR services, whether in the voluntary or statutory sectors. Different treatment for these particular volunteers is justified because of the combination of their pivotal role in the UK's emergency and SAR services and the unpredictability of call-outs," said the committee in their final report to Parliament.

However, the report does go on to say that tax incentives alone will not be enough to help volunteer organizations fund their operations. The committee's recommendation was that volunteer organizations receive additional funding from the state since they provide an essential service that cannot be foregone despite other international commitments of government resources.

www.publications.parliament.uk/pa/cm200405/cmselect/cmtran/322/32202.htm

Search and rescue stamps to be unveiled in June

As part of its 2005 stamp collection, Canada Post is releasing four 50-cent stamps honouring Canadian search and rescue.

Canada Post designed the stamps in collaboration with the National Search and Rescue Secretariat and SAR groups across Canada, around four themes: an alpine rescue, a maritime rescue, an air rescue and a ground rescue using a dog.

The stamp unveiling will be held

June 13 in Victoria, B.C., with representatives from Canada Post and SAR organizations. The Joint Rescue Co-ordination Centre in Victoria is organizing a SAR demonstration in conjunction with the event.

MOU boosts boating safety

A new national memorandum of understanding (MOU) was signed by the Canadian Coast Guard, the Canadian Coast Guard Auxiliary and Transport Canada Marine Safety in late January.

The first time these three bodies have formally joined forces to promote boating safety in Canada, this MOU defines the areas of co-operation and facilitates the planning and financing among the participants to promote boating safety and protect maritime safety interests.

To read the MOU, visit **www.ccga-gcac.org/home/home_e.asp**

New, faster Canadian Coast Guard vessel improves rescue abilities

Cape Mercy, an American designed, 47-foot lifeboat, was recently welcomed to the fleet in Cobourg, Ont.

Replacing the previous vessel, *Advent*, which had been based in Cobourg for several years, *Cape Mercy*'s speed will be an asset in search and rescue missions. While it would take the *Advent* five hours to travel from Burlington, Ont. to Cobourg, it took just three hours with the new vessel.

"It means someone in the water would be rescued much sooner," said Captain Colin Slade. "That could mean the difference between someone suffering from hypothermia or not. The speed is definitely going to impact our operations."

Joint Canada and U.S. exercise tests response capabilities

Maritime search and rescue teams from Alaska and British Columbia tested their response capabilities in an exercise at their shared international boundary, Dixon Entrance.

"This is the first major exercise with the U.S. Coast Guard in Alaska in some time," said Major Chuck Grenkow, Officer in Charge of the Joint Rescue Co-ordination Centre in Victoria.

Designed to increase the awareness of each country's capabilities and resources, the 15-hour, early April exercise included participation from the Victoria and Juneau Rescue Co-ordination Centres, two Canadian Coast Guard ships, three Canadian Navy ships, a CC-115 Buffalo and U.S. Coast Guard ships and aircraft.

"In addition to the practical aspects of working together on the water and in the air, it is important to exercise and evaluate the internal and external 'real-time' communications that are critical to both the command centres and search and rescue units," added Maj. Grenkow.

Captain Mike Kendall of the U.S. Coast Guard, and Chief of Search and Rescue Alaska, sees this exercise as an excellent opportunity to bolster an already strong relationship with the Canadian Forces.

"We are looking forward to honing our co-operation with our Canadian search and rescue partners and provide an even better service to mariners on our common maritime border," he said.

CCG College opens new technical training centre

The new Marine Maintenance and Equipment Training Centre (MMET) is now open at the Canadian Coast Guard College, just outside of Sydney, NS.

The new MMET will offer training to those Coast Guard employees responsible for the repair, maintenance and physical operation of Coast Guard technological systems. These systems include the electronic, navigational and communications system essential for mariners to navigate safely in our waterways and to operate the Coast Guard fleet.

"The new facility gives the Coast Guard a training centre of expertise. It will help ensure that our employees can build on their existing skills and knowledge and will mean the Coast Guard will continue to be second to none in the world," said John Adams, Commissioner of the Canadian Coast Guard.

Though stationed at the College, the Centre will not be used as part of the current cadet program, but for Coast Guard's Integrated Technical Services, and Fleet and Maritime Services employees.

Awards

2005 SAR Awards

Do you know an individual or group that has made a significant contribution to the efforts of search and rescue across Canada? Nominate them for the Outstanding Search and Rescue Achievement Award or a Certificate of Achievement.

The National Search and Rescue Secretariat's Awards Program was introduced in 1995 to acknowledge outstanding work done by search and rescue providers and organizations, and to raise awareness of search and rescue efforts across Canada.

The Outstanding SAR Achievement Award recognizes exceptional contributions to Canadian SAR by an individual or organization. The Certificates of Achievement recognize individuals or groups who have made significant contributions to SAR.

The award and certificates will be presented at SAR*SCENE* 2005 in Charlottetown, Prince Edward Island on Oct. 8, 2005.

Nominations are due **May 31, 2005**.

Canadian Safe Boating Council honours 13 in Toronto

At the 2004 CASBA awards in Toronto last January, 13 awards were handed out to those people, programs, organizations and marinas that help make boating in Canada safer and better for all and protect the environment.

The 2004 winners include:

- John Gullick: Safe Boater of the Year
- Peter and Sylvie Kitching: Canadian Power and Sail

Squadron's "Rescue of the Year"
• Bob Gossling: Marine Professional of the Year
• Randy Whaley and Mary Ridgewall: Top Volunteer Dedicated to Safe Boating
• MCTV, Temagami Marine and the OPP: Best Boating Safety Campaign
• BRP Inc.: Best New Marine Environmental Product
• OMOA Clean Boater Program: Environmental Campaign of the Year
• Carmanah Technologies Inc.: Best New Marine Safety Product
• Centre Point Landing Marina: Green Marina Environmental Initiative Award
• Vahé Vassilian, Sue Glover Takahashi and Kevin Jones: Special Recognition Award

Canadian Coast Guard Auxiliary Awards

To recognize its volunteer members, the Canadian Coast Guard Auxiliary (CCGA) has created an awards program to honour the achievements of its members nationwide.

To be eligible for any of the nine honours, a candidate's recognized service or activity must have occurred after Sept. 13, 1999 — when the awards program was adopted.

There is no nomination deadline as the Committee meets twice a year to review the nominations. The awards are presented in each region during the Annual General Meeting.

Nomination forms, rules and criteria can be found at **www.ccga-gcac.org/publications/awardpro_e.pdf** or through any regional office of the CCGA.

People

This is a new feature in SAR*SCENE* Magazine Online. We accept contributions for all areas of search and rescue. Submissions can be sent to the Editor at **lmackay@nss.gc.ca** or by fax to (613) 996-3746. We welcome your feedback on this and other features of SAR*SCENE* Magazine Online.

Air SAR

Over the coming months, the following senior appointment changes will occur:

LGen. Ken Pennie, who is retiring, will be replaced as Chief of the Air Staff by **LGen. Steve Lucas**.

MGen. Angus Watt will be appointed Assistant Chief of the Air Staff, replacing **MGen. Marc Dumais**, who has been promoted to Lieutenant-General and appointed Deputy Chief of the Defence Staff, replacing VAdm. Greg Maddison, who will retire. **MGen. Watt** will serve as the National Defence representative on the Interdepartmental Committee on Search and Rescue.

RAdm. J. Forcier will be appointed Chief of Staff Assistant Deputy Minister, replacing RAdm. F. Gibson, who will retire.

RAdm. D. Robertson will be appointed Commander Maritime Forces Pacific and SRR Commander in Victoria, replacing RAdm. Forcier.

General Rick Hillier has assumed the duties of Chief of Defence Staff.

Ground SAR

RCMP Supt. Craig MacLaughlan became the new Executive Director of the Nova Scotia Emergency Measures Organization in February 2005, replacing Mike Lester, who retired.

Capt. René Marchand of the Sûreté du Québec was elected Vice Chair of the National Ground SAR Council for a two-year term at the end of March. The Chair of the Council is OPP **S/Sgt. Tim Charlebois**.

Jeff Haack replaces Jim McAllister as the National Ground SAR Council representative.

S/Sgt. Dennis Erickson is the new RCMP 'E' Division Emergency Program Manager, replacing Sgt. Don Bindon.

Marine SAR

Malcolm Dunderdale was re-elected President of the Canadian Coast Guard Auxiliary's Pacific region, while **Louis Arsenault** is the new President of the Quebec region and **Jack Kruger** was recently elected President of Central and Arctic region.

Dr. Savithri Narayanan is the new Acting Dominion Hydrographer / Director General, Canadian Hydrographic Service, replacing Tony O'Connor.

Former Deputy Commissioner of the Canadian Coast Guard, **William Elliot**, has been named the Prime Minister's new National Security Adviser.

Gerard Loiselle will be the Acting Superintendent of Boating Safety in Western Canada, replacing Kevin Monahan. ■

Courtesy of Capt. René Marchand

In an effort to aid future cooperation between the two and to establish a more formal relationship, an agreement of mutual understanding was signed by the Sûreté du Québec and Parks Canada. It describes the role of each group in a search and rescue incident.

As part of the agreement, the Sûreté du Québec offered a Managing the Lost Person Incident course to Parks Canada officers working in Quebec. With this training, the Sûreté du Québec will be able to call on Parks Canada workers for help in a serious SAR incident.

GROUND SAR GROUP USES ATVs

by Carl Weisbrot

In the small town of Palgrave, south of Orillia, the buzz of four-wheel All Terrain Vehicles (ATV) is a familiar sound. However, instead of joy riders whipping through the underbrush, these ATVs are being used by local volunteers to search for missing people.

They are part of the volunteer search and rescue group called the Ontario ATV Search and Rescue Federation (O-ATV-SARF). The group was formed in late 2004 by John Penny after an autistic man went missing from the Oakville Detention Centre where he was receiving medical care.

"I received a phone call from a family member, Randy Mogridge's brother, Dean, who had heard of the Hills Riders ATV club through the radio and asked us if we could help in the search for his brother," said Penny.

The search for Randy Mogridge, who was severely autistic and estimated to have the mind of a young child, spanned almost two weeks and resulted in the discovery of his body in 16 Mile Creek, not far from where he went missing.

As a result, Penny decided an ATV volunteer ground search and rescue group was needed in Ontario and formed the OATVSARF with members from local ATV associations. Currently, there are 45 members, including several paramedics, a certified forest arborist, a police detective, a medical doctor and an EMS first aid and CPR instructor.

"After creating the group, the next step is to secure funding and to properly train everyone. After all, what's the point if we can't actually conduct a comprehensive search mission?" said Penny.

OPP Support

The group has already secured an association agreement with the Ontario Federation of ATV Clubs and the Canadian Council for All Terrain Vehicles. Currently, the group is seeking OPP recognition.

"The OPP currently have a Memorandum of Understanding with the Ontario Search and Rescue Volunteer Association (OSARVA). Discussions are currently under way to support OATVSARF joining OSARVA," said Sergeant Don Webster, the OPP's Provincial SAR Co-ordinator.

All current members are very experienced with ATV's, averaging over 10 years on the machines.

"Prospective members need to pass a police background check and we require that they have updated first aid and CPR certification, though, we do provide training in-house to make sure we're up to date," said Penny, "Right now, there are 12 members who are trained on the defibrillator that we take with us on missions."

Although the group is based out of Caledon, they intend to provide coverage for all of Ontario.

Currently the group has participated in three different missing persons cases, encompassing 14 separate search missions. There are plans to have a canine unit up and running by the end of July.

For more information, contact John Penny at: **johnpenny@oatvsarf.org** or visit **www.oatvsarf.org** ■

Carl Weisbrot was a co-op student with the National Search and Rescue Secretariat during the spring of 2005.

Fatigue's effects on the SAR team member

by Carl Weisbrot

BECAUSE SEARCH AND RESCUE INCIDENTS OFTEN INTERRUPT REAL LIFE — WORK, HOLIDAYS, SLEEP — SEARCH AND RESCUE TEAM MEMBERS MUST BE READY TO RESPOND AT A MOMENT'S NOTICE.

However, since searches can be time-consuming - in some cases taking more than a week — team members must be able to operate effectively in prolonged missions.

That means a very important part of a rescue management plan is a properly designed sleep schedule.

The human body operates on a schedule or a rhythm of sleeping and waking periods. The body likes to keep that schedule the same, if possible. Generally, the average person needs seven to eight hours of uninterrupted sleep to recharge the cognitive and physiological faculties.

However, search and rescue members do not have that luxury, and must operate for extended periods of time with little or no sleep. The body does have a limit, and will eventually shut down without proper sleep.

Quality versus quantity

According to a report by Dr. Carlos Comperatore, member of the Crew Endurance Team at the U.S. Coast Guard Research and Development Center, a two-hour nap of high quality sleep is required to maintain alertness levels. High quality sleep means sleep in a dark, quiet environment with no interruptions. Any other kind of sleep only worsens the subject's mental and physical abilities.

Recently, the Canadian Coast Guard (CCG), as part of a research and development project, partnered with B.C. Research Inc. to determine the effects of ship motion combined with sleep fatigue on crew performance.

"The question is, if a SAR vessel is out searching for long hours — or days — in high seas, how are the searchers affected by motion and fatigue?" says Laurel Ritmiller of B.C. Research.

Sea trials and simulators

The study was conducted at Memorial University's Marine Institute in St. John's, Newfoundland, using a high-fidelity full-motion bridge simulator at the Institute's Centre for Marine Simulation.

Combining sea trials and simulators, the CCG officers and crew were deprived of sleep for 24 hours and then had to stand watch to simulate fatigue. Participants wore a headset with a sensor next to the eye to measure blink rate, which changes with fatigue. Body movement and sleep were also measured using a wrist-mounted activity monitor and computer tests measured reaction times, spatial processing, logical reasoning, mental arithmetic ability, pattern recognition and memory. In addition, participants answered questions about motion sickness symptoms and workload assessments.

One of the most important aspects of the tests was target recognition and detection. To determine if the subjects' visual recognition was impaired, they were asked to look through a window and indicate when they first sighted the targets.

Preliminary results showed the subjects were least alert and responsive when fatigued and subjected to slight motion. At high rates of motion, the subjects were more alert, probably due to being tossed about and trying to remain standing.

By the end of the study, it was determined fatigue was a much greater influence on a search team's performance than motion.

As a result of the study, the CCG incorporated fatigue awareness into their National SAR Manual, and determined fatigue affected visual sharpness more than previously thought. Currently, the CCG is investigating the possibility of including fatigue awareness and recognition in its search and rescue training programs. ■

www.tc.gc.ca/tdc/summary/13400/13429e.htm

SAR Medic: A new course

by Brandie Howey

This past spring, eight members of Edmonton Regional Search and Rescue Association (ERSARA) took part in a pilot course called SAR Medic, offered by the Rescue Training Institute. The course is an intensive 60-hour commitment that combines the 44-hour Red Cross First Responder course with wilderness first aid components and focuses on practical work and scenarios based on real SAR events.

The training includes such courses as level C CPR, oxygen, evacuations, spinal injury care, blood pressure and basic First Aid. But there is an added twist: how to do all this in the wilderness where ambulance response times are not measured in minutes, but possibly hours? Because the SAR Responder may be faced with the extra challenges of isolation, and SAR Medic course offers extensive teaching in many areas to prepare the student for these situations. Specifically, environmental injuries, field water disinfection, preventing disease transmission, decontamination of equipment, camp hygiene, multiple casualty incidents and possible injuries to both SAR Responders and patients.

Instructor Daryl Black, long-time ERSARA member and president of Rescue Training Institute, has many years experience in teaching First Aid and related courses.

"Traditional courses, whether urban or wilderness based, do not deal with the specifics of SAR response. SAR responders need capabilities and equipment specific to their environment and mission and SAR Medic fills that need," he said.

This specialized training will enable SAR responders to provide better on-scene care and more detailed information of the situation to EMS responders.

For more information, visit **www.first-aid.ca**. ■

Brandie Howey is a long-time member of the Edmonton Regional SAR Association

Upcoming Events

2005 is Year of the Veteran
Across Canada

Emergency Preparedness Week
May 1-7, 2005
Across Canada

2005 Washington State Search and Rescue Conference
May 16-22
Leavenworth, Washington

National Safe Boating Week
May 21-27, 2005

Canadian Safe Boating Awareness Week
May 21-29, 2005

SAR 05
May 25-28, 2005
Oakland, California

ASAR Workshop 2005
Canadian Space Agency
June 2005
Vancouver, British Columbia

Canada's Aviation Hall of Fame Induction Dinner
June 4, 2005
Edmonton, Alberta

International Symposium on Mountain Rescue
June 13-19, 2005
Vail, Colorado

AIRMED 2005 Conference
June 20-24, 2005
Barcelona, Spain

CACP Annual Conference
August 21-24, 2005
Ottawa, Ontario

Canadian Safe Boating Council Symposium
September 22-25, 2005

International SAR Competition 2005
September 29 to October 1, 2005
Halifax, Nova Scotia

SAR*SCENE* 2005
October 5-8, 2005
Charlottetown, Prince Edward Island
Toll free: 1-800-727-9414

2006 International Boating and Water Safety Summit
April 30-May 3, 2006
Palm Harbor, Florida

For a complete list, visit *www.nss.gc.ca* and click on **Events**.

Arctic sovereignty patrol exercise includes simulated air crash

A two-week Canadian Forces sovereignty patrol in the high Arctic area of Isachsen, Nunavut, provided the opportunity for a multi-agency exercise.

Isachsen is 1,400 kilometres above the Arctic Circle and is said to have the worst weather in Canada.

The patrol, held between March 31 and April 15, included snowmobile expeditions to several islands in the area and involved 14 Canadian Rangers from the Northwest Territories, Yukon, Nunavut and Saskatchewan; nine Regular Force members from Canadian Forces Northern Area; and two CC-138 Twin Otters and their six crew members from 440 Transport Squadron in Yellowknife.

The Canadian Rangers and 440 Squadron exercised search and rescue skills that could benefit the Joint Rescue Co-ordination Centres in Victoria, Trenton and Halifax in the event of an incident in the high Arctic.

The April 8 air crash exercise simulated the 1950s U.S. Air Force DC-3 transport aircraft that crashed at Isachsen.

"This sovereignty patrol is part of regular operations conducted by Canadian Forces Northern Area," said patrol leader Major Stewart Gibson, Commanding Officer of 1 Canadian Ranger Patrol Group. "In addition to the training value, such patrols reinforce our presence in the Canadian high Arctic."

New low visibility landing requirements

In November 2004, Transport Canada issued new regulations for air landings in low visibility conditions. A Transport Canada committee decided to increase the previous minimum visibility range from 1,200 feet to 1,800 feet for landings and to make the requirements universal across Canada.

The proposed amendments build on current requirements and will help enhance safety for crew and travelers by establishing the minimum visibility at which an approach can be conducted using an aircraft's instruments. The guiding principle is that in an aircraft flying in poor visibility and approaching a runway to land, the crew must be able to see the runway environment in time to position the aircraft for a safe landing, prohibiting commercial air operators from beginning an approach when visibility is so poor that a successful approach to a landing is unlikely.

"Canada's air transportation system must cope with extreme weather conditions while maintaining the highest of safety standards," said Transport Minister Jean-C Lapierre in a news release. "These amendments clearly set out the minimum conditions for approaches in low visibility situations and demonstrate our ongoing commitment to safety."

While the new regulations are meant for civilian aircraft and pilots, search and rescue teams will benefit since the increased required visual range should equate to safer landings and fewer crashes, thereby decreasing the requirement for rescue missions.

http://canadagazette.gc.ca/partI/2004/20041120/html/regle6-e.html

Technology, training and improve Canadian

The following six projects are supported by the New Search and Rescue Initiatives Fund.

Evaluating training, technology and human factors for life raft use

When ship or oil-platform evacuation is necessary, life rafts are used as either a primary or secondary means of evacuation. But are these life rafts living up to their prescribed performance? And how do weather conditions affect the life raft's performance?

The Canadian Coast Guard has launched a research project to assess life raft operational performance in terms of technical capabilities in a wide range of weather conditions.

Funded by the New Search and Rescue Initiatives Fund, the three-year project will help researchers find the quantitative information necessary to measure life raft performance. Currently, not much is known about how life rafts perform as the weather deteriorates, the physical and cognitive demands upon personnel operating the life raft, or the competencies required and necessary training to be developed.

Both model and full-scale trials will be performed to determine the technical performance of the life rafts during inclement weather. The results of these model performance trials, and human factor assessments made throughout, will allow for a practical critique of current training standards for life raft use.

With the increased practical knowledge gained through this project, casualty survival time will be increased and the risk to search and rescue personnel will be reduced. It will improve the safety of personnel work on, or travel by, sea.

DFO 12/04 ■

UPDATE

Preparing for tsunamis in the Pacific region

In 2001, the Department of Fisheries and Oceans began researching the possible effects of a tsunami on the West Coast.

This project was funded by the New Search and Rescue Initiatives Fund to provide information to British Columbia's marine and search and rescue communities of expected tsunami heights, arrival times and currents along coastal waters through detailed, high-resolution bathymetric data* to provide accurate simulations of currents in vulnerable areas.

In light of the 2004 tsunami in Asia, this project is timely. When the project was proposed, there was no reliable information on the effects of a Cascadia Subduction Zone tsunami on the coastal communities in southern and western Vancouver Island.

It is expected this zone will generate a severe earthquake and tsunami in the next few hundred years and it is necessary to develop plans and evacuation routes for mariners and others living in coastal towns. An earthquake registering a seven or eight on the Richter scale can cause a tsunami with a height of five metres or more.

According to recent project reports, excellent results have been achieved from the modeling efforts to date, with a summary of results and recommendations for use by search and rescue managers and responders in the months to come.

More information about this project is available in SAR*SCENE* Magazine, Volume 13, #2.

**Bathymetry is the measurement of water depth at various places in a body of water.*

DFO 3/01 ■

public education programs search and rescue

Rimouski's Quick and Efficient Response Unit

With the vast and rugged terrain of Rimouski, Quebec, search and rescue is not an easy task.

Designated as "Region 1" by the Sûreté du Québec, the area between the lower St. Lawrence/Gaspésie and Iles de la Madeleine covers more than 22,000 square kilometres and has a population of more than 200,000.

Noticing there was a shortage of well-trained search and rescue volunteers, as well as equipment, the Sûreté du Québec knew something had to be done to provide an effective search and rescue service in the area.

Their solution was the Quick and Efficient Response Unit project, funded by the New Search and Rescue Initiatives Fund.

This one-year project is designed to provide search and rescue volunteers with the necessary basic equipment and training to improve their search and rescue capabilities.

After evaluating all the needs, the solution was to build a light, well-equipped truck that is ready no matter what the season and can be driven on all kinds of roads and trails to ensure a fast and efficient response. The truck will have the required logistical support, will serve as a command post and could later be available for team training.

QC 1/04 ■

New public education program launched in B.C.

In the last two years, the number of search and rescue incidents in British Columbia has increased 25 per cent.

With a comprehensive and focused education program, the AdventureSmart project is designed to reduce the number and severity of these incidents.

Funded by the New Search and Rescue Initiatives Fund, in partnership with B.C. Provincial Emergency Program, AdventureSmart is a public education program that has been created to provide knowledge and understanding concerning the risks associated with outdoor recreational activities.

Limited education and awareness programs are currently being delivered to a small segment of the B.C. community, but do not have enough resources. AdventureSmart will act as the B.C.-wide banner to co-ordinate a more effective program.

There are eight core programs under the AdventureSmart banner, including:

- YouthSafe: risk management for school outdoor programs for kindergarten to grade 12
- Hug-a-Tree and Survive: outdoor survival strategies for grades four and five
- Mountain Safety/Winter Programs: grades seven to 12
- AdventureSmart Youth Teams: extension and delivery of key messages through participation in outdoor sporting activities and events
- Risk Management for Outdoor Programs: education programs designed for post-secondary age groups
- Avalanche Safety: awareness programs in conjunction with the Canadian Avalanche Association
- Seasonal Safety Programs: public presentations focusing on boating safety, river safety and other seasonal activities
- AdventureSmart Outdoor Safety Materials: to support local initiatives and provide broad public awareness

The focus of AdventureSmart is to provide increased knowledge and awareness to outdoor recreationists and assist in their making wise choices to reduce the chances of becoming lost or injured when participating in outdoor activities.

BC 11/04 ■

Distance learning for SAR managers

Evolving techniques and new strategies and tactics, make it is necessary for search and rescue managers and commanders to ensure their knowledge and practices are kept up-to-date. But this is not always easy to do because of the significant commitment of time needed to take five-day courses to ensure qualifications are current.

The RCMP, in partnership with the Justice Institute of B.C., has developed an innovative distance learning package on CD-ROM to teach advanced search management skills.

Funded by the New Search and Rescue Initiatives Fund, the training package serves as both training for SAR managers to remain current, as well as a training module for police officers for the role of SAR Manager or SAR Commander.

This package makes training more accessible because it can be done from any computer at the individual's pace — and it can be reviewed regularly.

The training will be based on, and will enhance, the existing SAR Commander awareness training already delivered to B.C. police constables through the Justice Institute of B.C.

RCMP 1/04 ■

Risk assessment for recreational boating

To develop better prevention programs for boating safety, researchers have investigated factors associated with recreational boating, including demographics, personal flotation device use and alcohol consumption.

But little research has been done on the patterns of recreational boating in Canada. To assist in search and rescue planning and develop prevention programs, the Canadian Coast Guard (CCG) has identified a need to know more about patterns, such as; frequency, location and type of activity.

The Marine Activity and Risk Investigation Network (MARIN) Research Group at Dalhousie University has developed a location-based risk analysis study that will provide important information to assist with prevention strategies for recreational boating.

Funded by the New Search and Rescue Initiatives Fund and sponsored by the CCG, this three-year project will determine boating traffic characteristics and traffic patterns, determine nationwide recreational boating patterns and characteristics, determine the significant risk factors associated with recreational boating, and develop an effective way to communicate the results in plain language to increase the effectiveness of prevention programs.

The CCG uses significant resources when responding to search and rescue cases involving recreational boats, therefore having traffic models and associated risk measures will result in a more efficient distribution of response resources and better prevention programs.

DFO 7/03 ■

For more information about the New SAR Initiatives Fund, visit ***www.nss.gc.ca*** and click on **New SAR Initiatives** in the top menu bar.

SARSCENE 2005

October 5-8

Charlottetown, Prince Edward Island

in partnership with PEI Emergency Measures Organization and local SAR organizations

SARSCENE Games

Presentations

Demonstrations

Trade Show

Social Events

Simulated marine disaster helps participants prepare for major multi-agency rescues

AN HOUR AFTER LEAVING SYDNEY, N.S., EN ROUTE TO PORTE AUX BASQUES, NL, THE MARINE ATLANTIC FERRY, *MF CARIBOU*, RUNS INTO PROBLEMS WHEN THE ENGINE FAILS. THIS PARTICULAR STRETCH OF SEA IS KNOWN TO HAVE SOME OF THE ROUGHEST WATERS IN THE WORLD.

It is 5:30 a.m. and the Chief Engineer tries to fix the engine problem, to no avail. The Captain advises Marine Communications and Traffic Services, Sydney, of the problem and his message is relayed to the Joint Rescue Co-ordination Centre in Halifax. There are 216 passengers, 69 crew, 19 tractor trailers and 62 cars on board. Suddenly, the ship rolls and four people are seriously injured. What happens next?

That is what the participants of the latest Major Marine Disaster table-top workshop in Sydney, N.S. had to decide. When is the right time to call in rescue resources? What resources should be called in? Who should be contacted? Who should take the lead in this incident?

The role of other agencies

Organized by the Canadian Coast Guard and funded by the New Search and Rescue Initiatives Fund, the exercise included participants from the Canadian Forces, Navy Public Affairs and the Joint Rescue Co-ordination Centre, Halifax, the Canadian Coast Guard, (including Marine Communications and Traffic Services, Sydney) Marine Atlantic Shipping Line, the Cape Breton Regional Municipality, Emergency Health Services and the local hospital.

Using the Search Mission Management System, participants logged their actions and decisions based on the scene unfolding in front of them. The group worked together and learned important information about each other's abilities, resources and responsibilities.

When the day ended, all participants said the exercise had been extremely helpful — not only to learn about the role of other agencies in such an incident, but also to meet the people with whom they may one day be working.

Exercises such as this help organizations to prepare for potential major rescue scenarios involving many groups. They are complex operations relying on well-established inter-agency co-operation. The participants agreed more one-on-one discussions with other agencies will help to achieve a better understanding of their roles and responsibilities and to keep each other aware of changing policies and procedures. ■

NSS 2/00

CCG becomes Special Operating Agency

It was officially announced in early April that the Canadian Coast Guard (CCG) has been designated as a Special Operating Agency — the largest in Canada.

"The Government made the Canadian Coast Guard a Special Operating Agency as part of its ongoing priority to ensure high quality, efficient and effective service to the public," said the Honourable Geoff Regan, Minister of Fisheries and Oceans, in making the announcement.

"It also acknowledges the importance and unique status of the Canadian Coast Guard within the federal family."

Though still technically housed under the Department of Fisheries and Oceans, this new status is intended to give the CCG more management and financial flexibility.

"The new Special Operating Agency status gives the Canadian Coast Guard the opportunity to focus its resources on what it does best — providing top-notch marine services throughout Canada," said Minister Regan.

"The change will also position the CCG to respond to its enhanced role under Canada's national security agenda, while improving traditional services through continuous renewal."

Three of six new vessels to be stationed on west coast

In the government's recent budget, new funding was outlined for the Canadian Coast Guard (CCG). Over the coming five years, $276 M will be invested in CCG's fleet to begin modernization and acquire six new vessels. Three of these vessels will be stationed on the West Coast.

"The Coast Guard plays a vital role in the lives of British Columbians," said David L. Emerson, Minister of Industry and co-senior Minister for B.C. in a news release. "I'm extremely pleased to see the federal budget has recognized this fact and allocated significant new funds to upgrade the fleet on the Pacific Coast."

A science research trawler and two mid-shore fisheries patrol vessels will be based on the West Coast, while a science trawler and patrol vessel will be based in Dartmouth, N.S., and the final one, a patrol vessel, will be based in Quebec City.

In addition to the $276 M for the six new vessels, the CCG is receiving funding for four new mid-shore patrol vessels that will be used for security on the Great Lakes and St. Lawrence River. These vessels will also be armed for the first time as they will have RCMP officers on board.

These patrol boats' primary responsibility will be security — on-board RCMP officers will have full law-enforcement powers — but they will also help with search and rescue operations.

This funding is part of the $222 M allocated to federal security agencies to increase security on the Great Lakes and the St. Lawrence River system.

Drownings database helps organizations save lives

by Carl Weisbrot

In an effort to educate the public and help organizations save lives, the Water Incident Research Alliance (WIRA) has created a database of drownings and water-based deaths in Canada. In partnership with the Canadian Red Cross and the Lifesaving Society, the Alliance has formed a non-profit organization that will provide data regarding water-based deaths in Canada in an easy-to-access form.

WIRA collects data involving all incidents that occur in Canada in, on, or near water (including Canadian waters up to 200 miles off-shore). The focus is on gathering information about unintentional, but significant, injuries that require medical attention beyond first aid by bystanders or front-line/on-site employees. These injuries include fatalities such as drownings, major injuries requiring hospitalization, and minor injuries that require doctor or dentist follow-up or activation of emergency medical services such as 9-1-1, ambulance, fire, police, hospital emergency room or clinic follow-up.

Currently there is a publicly available database that lists events by gender, age and location. However, a fully detailed breakdown of each event is available for a small fee. WIRA uses the money to maintain and expand their database.

WIRA's goal is a systematic, comprehensive, up to date national database of water-based deaths. For more information, visit: **www.waterincident.ca/home.cfm**